REMARKS

Claims 1-3 and 5-9 remain in the case.

The rejection of claims 1-2, 5-7, and 9 under 35 U.S.C. 103(a) as being unpatentable over Minagawa ('797) in view of Powell or Tuckey ('455) is respectfully traversed.

The office action states that Applicant argues that the pressure regulator used in Powell is inferior to the regulator of the present invention. Applicant contends that in all previous replies the Applicant has never stated the pressure regulator used in Powell is inferior; rather Applicant has consistently maintained that the pressure regulator of Powell is a conventional pressure regulator that uses a diaphragm-type regulator that opens to relieve pressure and that such diaphragm-type regulators are very effective for maintaining a constant fuel pressure. Moreover, such diaphragm-type regulators add significant cost to the fuel system. When a diaphragm-type regulator is used, then a constant pressure is maintained in the fuel lines as illustrated by the ideal constant pressure curve 72 shown in Fig. 2.

The pressure regulator of the present invention does not utilize a diaphragm-type pressure regulator but rather an unconventional regulator, and as a result, it outputs a linear but non-constant pressure output as illustrated by the pressure curve 70 shown in Fig 2.

The office action also states that the pressure regulator of Powell utilizes a spring-like regulator that responds the same as Applicants pressure regulator. Applicant disagrees with the Examiner's assertion such that the pressure regulator utilized in the fuel tank, of Powell, is not a spring-like regulator. For clarification, Powell utilizes two pressure regulators. A first regulator (10) is disposed exterior to the fuel tank and a second pressure regulator (23) is utilized interior to the tank. For this reason alone the fuel delivery system of the Powell and the present invention are dis-similar as

Powell requires two pressure regulators for maintaining the desired flow rates and pressure to the injectors. The first pressure regulator (10), of Powell, is not the comparator to the pressure regulator of the present invention as this regulator is disposed exterior to the fuel tank (12) and does not return a portion of the pump output to the fuel supply (fuel tank) such as the pressure regulator of the present invention. The second pressure regulator (23) is disposed within the fuel supply (12) and includes an outlet (23b) to the fuel supply (23) for returning fuel to the fuel tank (23). The second pressure regulator (23) is a diaphragm-type regulator as shown by Powell's references to three patents (US 5193576, US5163472, US 5193576) as examples of the conventional by-pass pressure regulators that are used in its system (see col. 2, lines 25-30). As stated earlier, the pressure regulator (23) of Powell provides a constant pressure whereas the pressure regulator of the present invention outputs a linear, but non-constant pressure. As a result, the pressure regulator of Powell is not similar to that of the present invention and does not respond the same as Applicants.

The Office Action further states that Minagawa is comparable to the fuel pump of the present invention since the fuel pump is pulse-width controlled and may be controlled at a constant output accordingly. Minagawa is a sophisticated electronic returnless fuel pump system which includes a pulse-width modulated fuel pump and is not comparable to the present invention since the present invention simplifies the fuel delivery system by utilizing simple and less expensive components that operate in a cooperative and nonobvious manner. Providing such a simplified system provides a novel and useful invention by reducing cost, complexity, and is energy efficient. The fuel delivery system of the present invention as a whole has not been shown by the prior art nor suggested by the prior art. The Office action has individually referenced complex components and systems while suggesting that such complex components could be substituted to perform the functions of the present invention. Such a substitution would be neither practical nor obvious to do.

The Federal Circuit has consistently said that in order for references to be properly combined they must contain some teaching or suggestion of the proposed combination. In *Panduit v. Dennison Manufacturing Co.*, 1 U.S.P.Q.2d 1593, 1597 (Fed. Cir. 1987), the Federal Circuit reviewed the District Court's finding that a plastic cable tie was obvious based on prior art under 35 U.S.C. 103. The District Court had concluded that *Panduit*'s cable tie was obvious because its components had separately appeared in prior patents. The Federal Circuit noted that the District Court, "improperly treated all cable ties as virtually interchangeable ...." *Panduit* at 1600. In reversing the District Court, the Federal Circuit noted that the prior art as a whole must suggest the combination claimed in the application; and "hindsight reconstruction from similar elements in separate prior patents would necessarily destroy virtually all patents and cannot be the law under 35 U.S.C. 103." *Panduit* at 1603, citing, *Akzo N. V. v. International Trade Commission*, 1 U.S.P.Q.2d 1241, 1246 (Fed. Cir. 1986), and *W.L. Gore & Associates, Inc. v. Garlock*, 220 U.S.P.Q. 303, 312 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 461 (1984).[1]

In the present invention, the claimed fuel delivery system is a mechanical returnless fuel system using a fuel pump having a substantially constant output in cooperation with a non-constant pressure regulator valve. The office action utilizes components of dissimilar fuel systems (e.g., electronic returnless fuel system, pulse width modulated fuel pump, and diaphragm-type regulator) that operate differently that that recited in the present invention to suggest the limitations of the present invention. The present invention includes less complex and cost-effective components selectively arranged and fluidically coupled together for efficiently regulating fuel to the injectors.

The arguments for the allowability of claims 1-3 and 5-9 as discussed in applicant's response to previous office actions remain.

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[1] See also. *ACS Hospital Systems. Inc. v. Montefiore Hospital*, 221 U.S.P.Q. 929. 933 (Fed. Cir. 1984); *Carella v. Starlight Archery. Inc.*, 231 U.S.P.Q. 644. 647 (Fed. Cir. 1986); and *Fromson v. Advance Offset Plate. Inc.*, 225 U.S.P.Q. 26.31 (Fed. Cir. 1985).

In view of the foregoing amendment and remarks, all pending claims are in condition for allowance. Favorable action is respectfully solicited.

Respectfully submitted,

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Frank L. Lollo
Reg. No. 48,854

MacMillan, Sobanski & Todd, LLC
One Maritime Plaza, Fourth Floor
720 Water Street
Toledo, Ohio 43604
Tel: 734-542-0900
Fax: 734-542-9569